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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/580,334	05/24/2006	Junichiro Takahashi	03500.111549	5542

5514 7590 09/12/2007  
FITZPATRICK CELLA HARPER & SCINTO  
30 ROCKEFELLER PLAZA  
NEW YORK, NY 10112

EXAMINER
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BRASE, SANDRA L

ART UNIT	PAPER NUMBER
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2852

MAIL DATE	DELIVERY MODE
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09/12/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/580,334

Applicant(s)

TAKAHASHI ET AL.

Examiner

Sandra L. Brase

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-12 is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 May 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 8/28/07; 9/8/06 & 5/24/06.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_.

***Ex Parte Quayle***

1. This application is in condition for allowance except for the following formal matters.

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 25 USPQ 74, 453 O.G. 213, (Comm'r Pat. 1935).

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

***Drawings***

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 617a, 617b, 617c, 618, 619, 622 and 640 (figure 6). Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Specification***

3. The abstract of the disclosure is objected to because on line 11 of the abstract (page 59, line 12), “and should be inserted at the end of the line after the first equation, in other words after “0.13”. Correction is required. See MPEP § 608.01(b).

4. The disclosure is objected to because of the following informalities.

Appropriate correction is required.

On page 7, line 15, “416” should be changed to “416a and 416b” or “416(416a and 416b)”.

On page 10, line 14; on page 11, line 7; on page 12, line 23; and on page 16, line 14, “and” should be inserted after “0.13”.

On page 10, line 15; and on page 16, line 15, “ $85 \times S + 3 \leq F \leq 350 \times S + 3$ ” should be changed to “ $85 \times S + 3 \leq F \leq 350 \times S + 3$ ”.

On page 22, line 7, “ $\sigma = 503 \times (\rho/f\mu)^{1/2}$ ” should be changed to “ $\sigma = 503 \times (\rho/f\mu)^{1/2}$ ”.

***Claim Objections***

5. Claims 1-12 are objected to because of the following informalities. Appropriate correction is required.

On line 9, claim 1, and on line 9, claim 4, “and” should be inserted at the end of the line after the first equation, in other words after “0.13”.

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Claims 1 and 4 do not have the appropriate period punctuation at the end thereof indicating the end of the sentence.

***Allowable Subject Matter***

6. Claims 1-12 are allowed.

Claims 1-3

The primary reasons for allowance is a metal belt, characterized in that the metal belt is made of a nickel-iron alloy manufactured by an electroforming process and that when the iron content of the nickel-iron alloy is denoted by F (mass %) and the sulfur content thereof is denoted by S (mass %), the nickel-iron alloy satisfies relationships expressed by the following equations:  $0.001 \leq S \leq 0.13$  and  $85 \times S + 3 \leq F \leq 350 \times S + 3$ . The above limitations are contained in claims 1-3, but are not taught or suggested by the prior art of record.

Claims 4-12

The primary reasons for allowance is a fixing belt having a metal layer, characterized in that the metal layer is made of a nickel-iron alloy manufactured by an electroforming process, and that when the iron content of the nickel-iron alloy is denoted by F (mass %) and the sulfur content thereof is denoted by S (mass %), the nickel-iron alloy satisfies relationships expressed by the following equations:  $0.001 \leq S \leq 0.13$  and  $85 \times S + 3 \leq F \leq 350 \times S + 3$ . The above

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limitations are contained in claims 4-12, but are not taught or suggested by the prior art of record.

### ***Prior Art***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Yaomin et al. (US 6,782,230), Abe et al. (US 6,597,888), Abe et al. (US 6,456,819), Yano et al. (US 2003/0173356) and Zhou et al. (US 2002/0146259) disclose a fixing belt having a metal layer.

### ***Inquiry***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sandra L. Brase whose telephone number is (571) 272-2131.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Gray, can be reached on (571) 272-2119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, reading "Sandra L. Brase". The signature is fluid and cursive, with the first name "Sandra" and last name "Brase" clearly legible.

Sandra L. Brase  
Primary Examiner  
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August 29, 2007